



Financial Impacts of Project Delays on the East County Advanced Water Purification Project

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MWD



Project Goals



Create
a **NEW, LOCAL,**
Sustainable + Drought-proof
drinking water **SUPPLY**



Eliminate

15 million gallons/day of wastewater
DISCHARGE into the

Pacific Ocean



Reduce
the region's
DEPENDENCE
on imported water

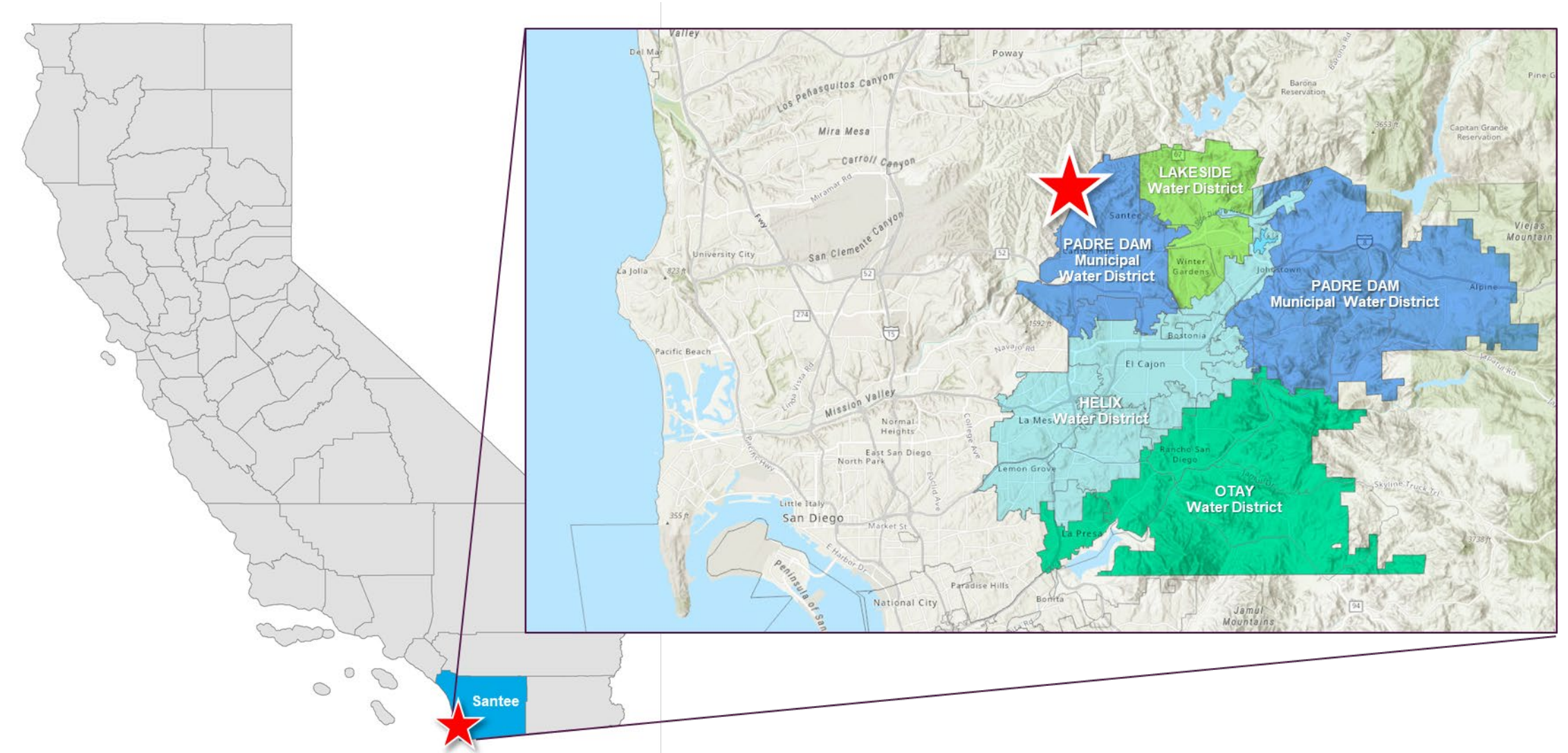


Provide

up to **30%** of
East County's
DRINKING WATER demand



Project Location





East San Diego County's Water Supply

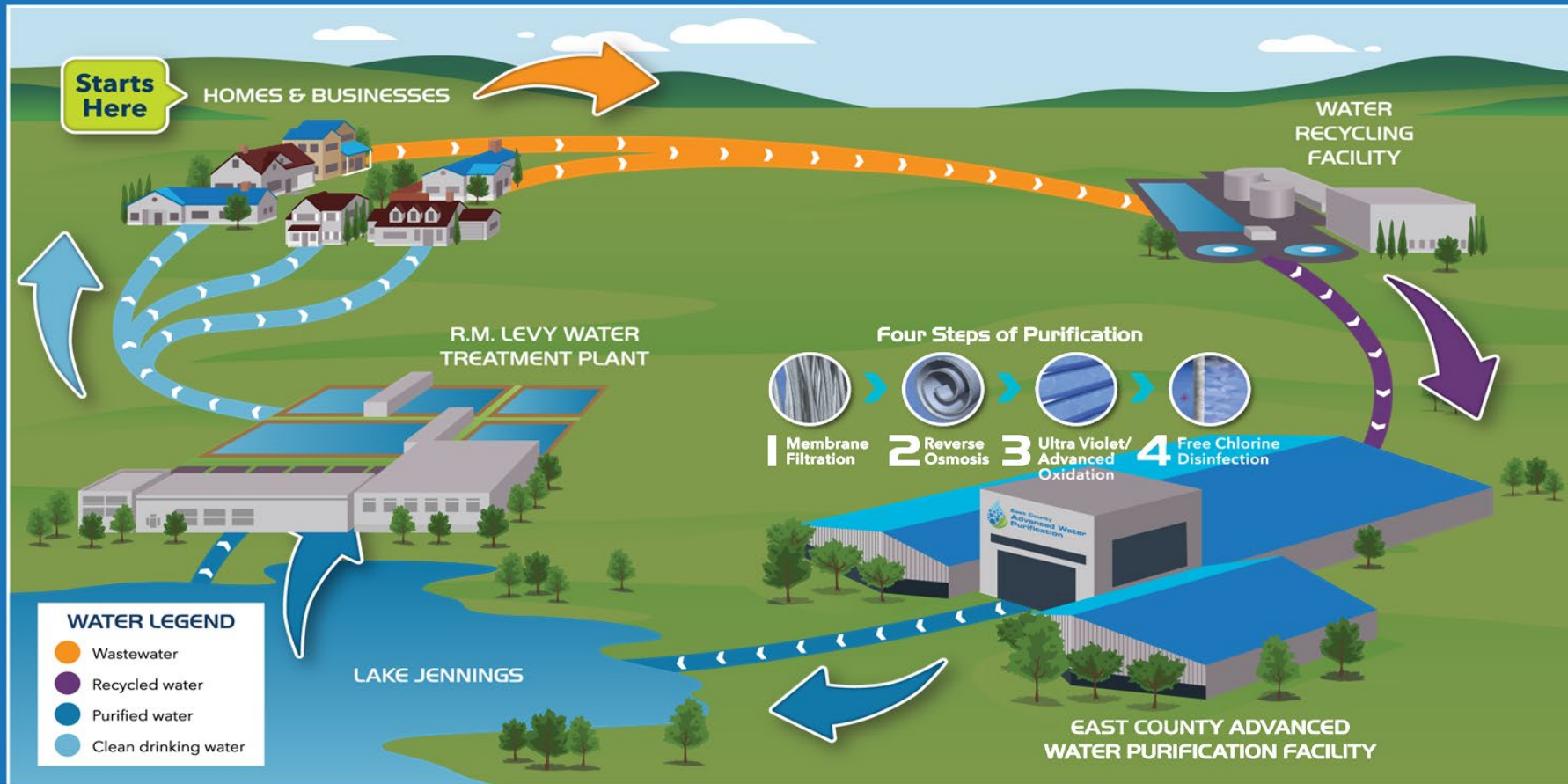




Program Components



HOW THE EAST COUNTY ADVANCED WATER PURIFICATION PROGRAM WORKS





AWP Project Partners



- Padre Dam MWD
- County of San Diego
- City of El Cajon
- Helix Water District
- City of San Diego (for Package 4)



Delivery Method – Progressive Design Build

Factors of Influence	DBB	DB	PDB
Early cost certainty		X	X
Flexibility to adapt design to meet project budget	X		X
Minimizing the upfront spend			X
Ability to meet/accelerate established project schedule		X	X
Ability to provide input on design	X		X
Reduced potential for claims		X	X
Allocation of risk to the appropriate party		X	X
Reduced liability gap between the Design Engineer and General Contractor		X	X



Progressive Design Build Teams

PACKAGE #1

AECOM W. M. LYLES CO.
CONTRACTOR
Since 1912



PACKAGE #2

ORION CONSTRUCTION CORPORATION
GHD



PACKAGE #3

AECOM W. M. LYLES CO.
CONTRACTOR
Since 1912



PACKAGE #4

ORION CONSTRUCTION CORPORATION
GHD



PACKAGE #5

Anaergia





A Few Milestones

2015

AWP Demo Plant Opening



2018

CEQA Complete and Approved



2020

Secured \$90M from MWD



Agreements Executed



Design-Build Contracts Executed

2022

Secured \$378M from SRF Clean Water State Revolving Fund



Secured \$5M Grant from Prop 1

AWP Demonstration Plant Groundbreaking

Feasibility Study / MOU



Water Agency of the Year



MOU Extension

DDW Conceptual Approval for the Project

Interim Funding Agreement: \$9M



EPA selects ECAWP to apply for WIFIA: \$342M

JPA Formed



Secured \$388M from WIFIA



Construction



2014

2017

2019

2021

2024



Factors Contributing to Cost Increase

Construction Labor Shortages

- Impact on Project Schedules & Costs

Supply Chain Issues

- Impact on Project Schedules

Material Price Escalation

- Impact on Project Costs





Construction Labor Shortages

■ Causes:

- Scarcity of qualified skilled workers
- Record number of older workers leaving the workforce
- Increased demand for workers – planned federal infrastructure spending

■ Impact:

- Delay in overall construction schedule
- Increased wages and overtime = increased labor costs

*“The construction industry will need to attract nearly **650,000** additional workers on top of the normal pace of hiring in 2022 to meet the demand for labor”*

– Associated Builders and Contractors





Supply Chain Issues

■ Causes:

- Pandemic-related disruptions ongoing
- Lack of distribution staffing
- Global uncertainty
- Backlog and increased demands

■ Impact:

- Extended equipment delivery times
- Delay in overall construction schedule
- Potential cost impacts due to alternative sourcing





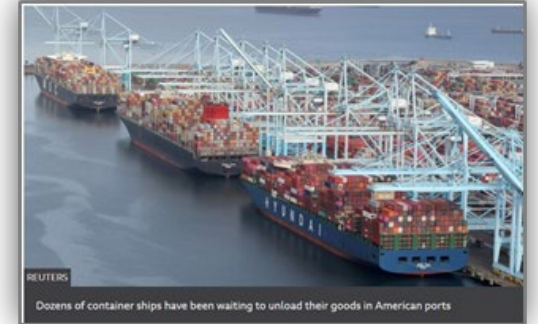
Materials Price Escalation

■ Causes

- Increased demands with economic reopening
- Labor shortages in manufacturing
- Historic inflation and increased fuel costs increase manufacturing and shipping costs
- Global uncertainty – pandemics, geopolitical concerns, etc.

■ Impact

- Increased construction costs
- Under Progressive Design Build, design-builder retains most of the risk of continued escalation post-GMP (Price certainty)





Materials Price Escalation

- Steel Pricing was a significant concern
- Material Increases experienced:
 - Fabricated structural metal ↑42%
 - Steel mill products ↑127%
 - Iron and steel ↑87%
 - High volatility in pricing
- Other Commodity Price Increases:
 - Copper
 - Lumber
 - Plastic





Schedule & Cost Mitigation Efforts

JPA/OWNERS ADVISOR

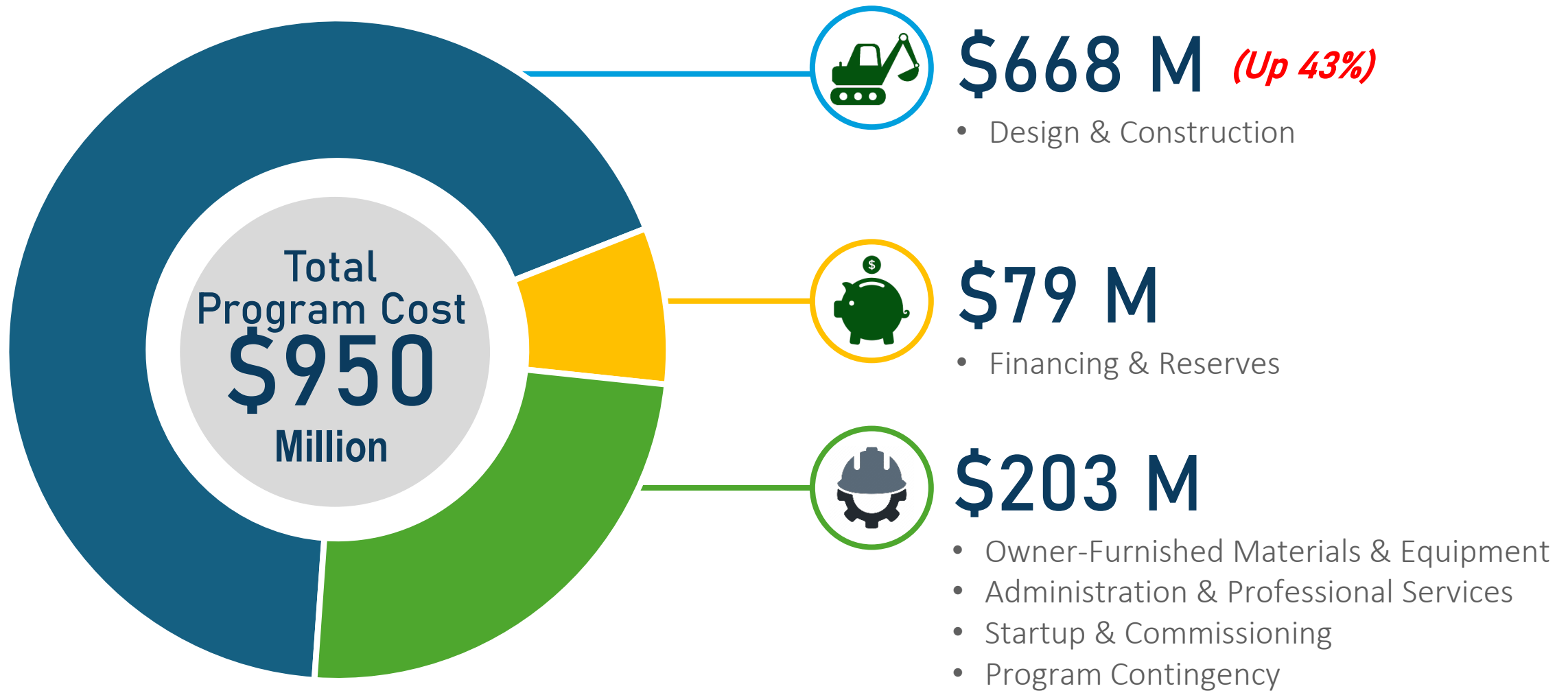
- Confirm Design-Builders' accounting of current pricing is not overstated
- Pushed GMP Schedule out by 3 months
- Negotiated inclusion of Escalation in GMP
- Updated financial forecast with assumed escalation
- Residual risk (future increased escalation) resides with Design-Builder after GMP

DESIGN BUILDERS

- Account for current commodity pricing in AWP Project costs
- Adjust construction schedules to accommodate delays
- Plan early procurement of long-lead equipment
- Leverage relationship with manufacturers and vendors and to minimize delays



Program Cost Up to Commercial Operations





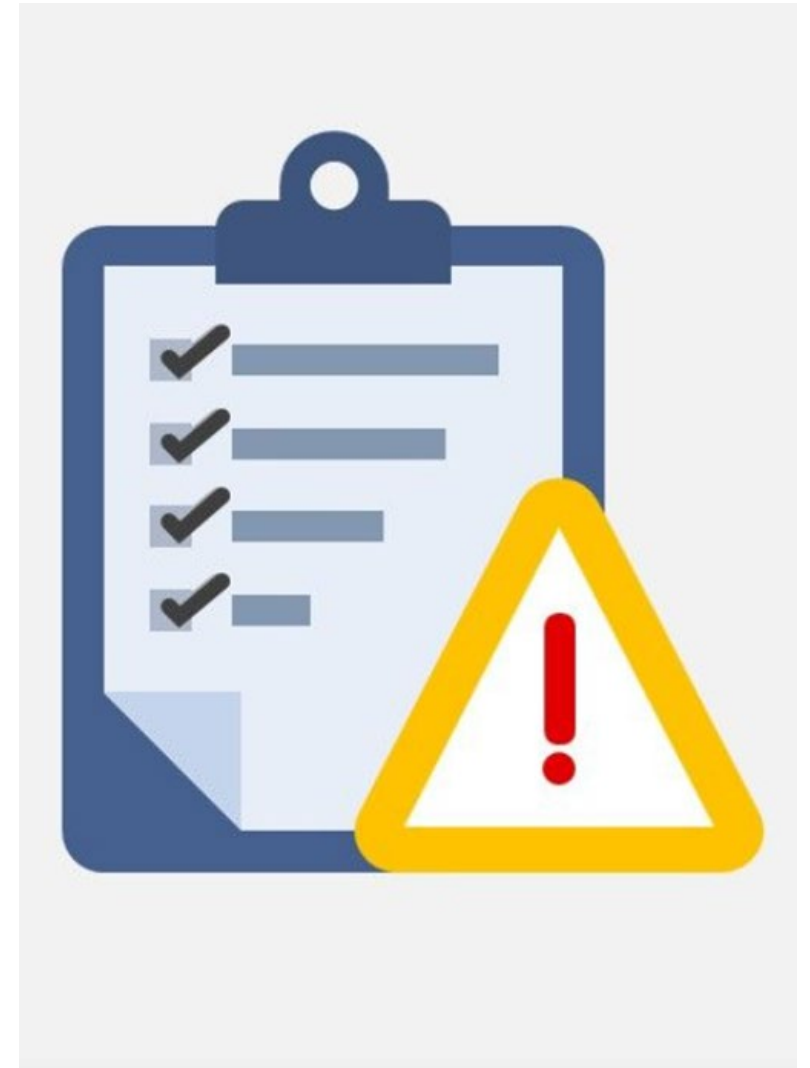
Project Funding





Your Project Mitigation

- What is your “Covid”?
- Value Engineering to Control Costs
- Talk to Others for Input
- Structure Contracts Up Front
- Appropriate Entity to Carry Risk
- Build the Right Team!





Thank You

